

ABSTRACT OF THE DISCLOSURE

A fuel oil supply circuit that includes two bypass mechanisms for burner startup including an electrical valve bypass in parallel circuit with a mechanical valve bypass. The fuel oil supply circuit includes an oil pump that is adapted to pressurize fuel oil and a downstream regulating valve assembly that is adapted to regulate pressurized fuel flow to the nozzles of the burner. A solenoid valve controls flow of pressurized fuel oil through the regulating valve assembly to the nozzles. The solenoid valve has a first state keeping the regulating valve assembly closed, and a second state allowing the regulating valve assembly to open. A diaphragm valve is fluidically connected to the pump in parallel circuit with the regulating piston assembly to provide an alternative bypass mechanism as a backup for the electrical solenoid valve.

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